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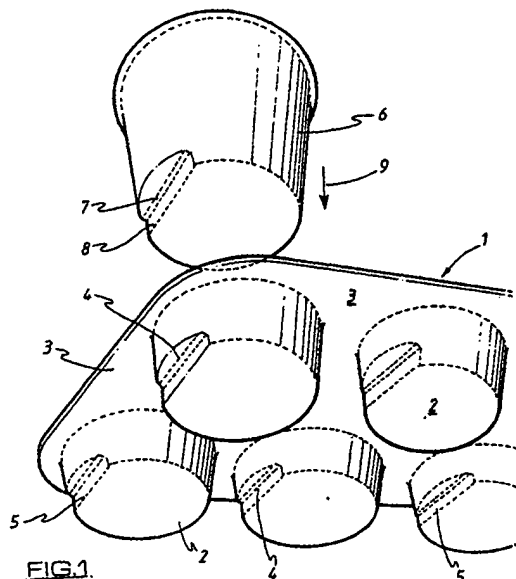
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(54) **Packaging arrangement**

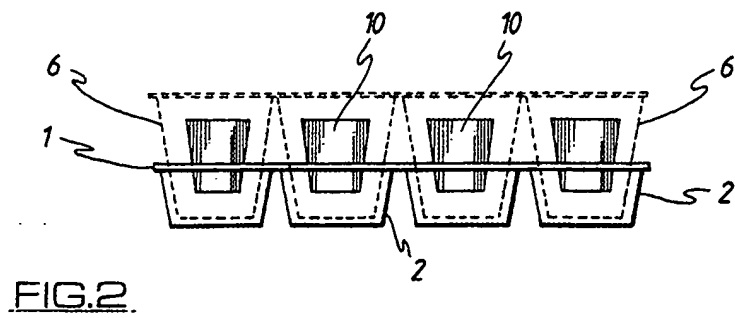
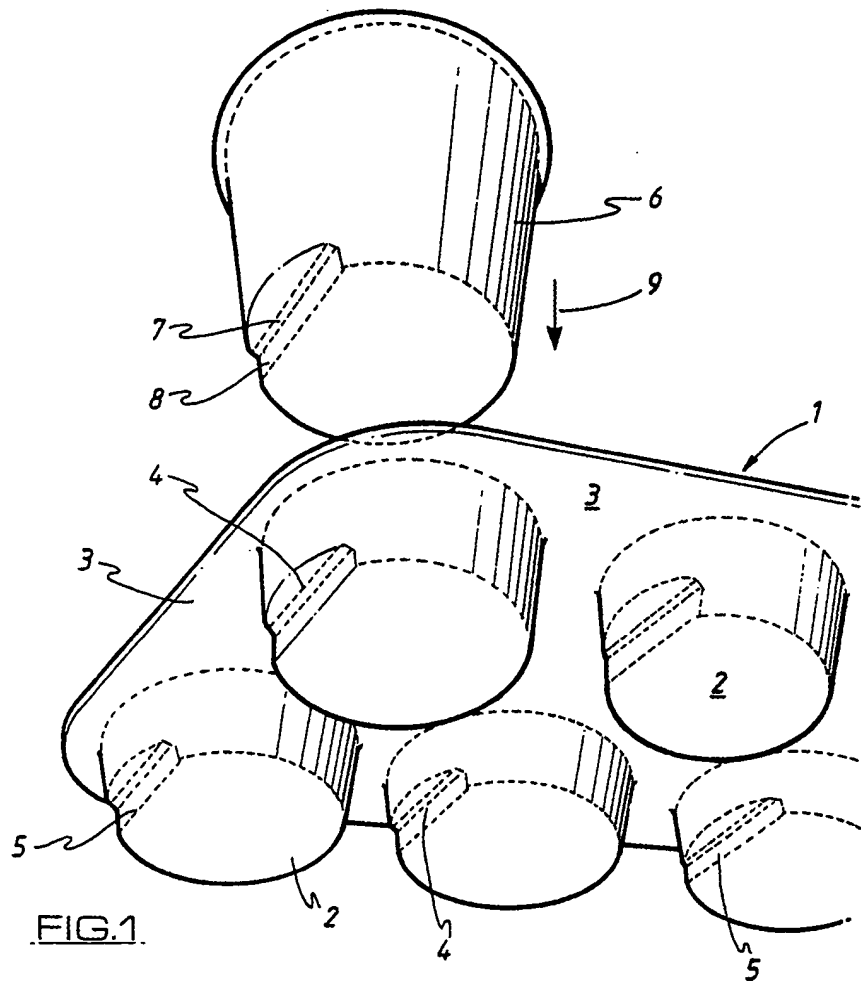
(57) Packaging comprises a plastic tray 1 having recesses in which stand packaging containers 6 in the form of plastic cups. The cups are identical and each has a single stepped portion 7 at the lower edge where it seats in the recess. The recess defines a shoulder which engages the cup stepped portion so that the cups are, by the stepped portions and shoulders, automatically arranged in the tray in the same orientation so that labels appropriately placed on the cups will face in the same direction when the packaging is placed for example on a supermarket shelf.



At least one drawing originally filed was informal and the print reproduced here is taken from a later filed formal copy.

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Packaging Method and Arrangement

This invention relates to the arrangement and packaging of articles.

An embodiment of the invention will be described, by way of example, with reference to a particular application in the retail industry, but it may, of course, be employed in other ways, for example in manufacturing.

The embodiment of the invention is described, by way of example, with reference to the accompanying drawings in which:-

Fig. 1 is a perspective view from below of packaging according to the embodiment of the invention; and

Fig. 2 is a diagrammatic front view of the packaging.

Retail produces are often packaged in primary packages, which may, for example, be containers made of glass, a plastics material, paper or metal. These primary packages are usually circular in cross section, printed or labelled on their sides, and contained in secondary holders or packages, such as trays with recesses such as dished portions for receiving the primary packages, in order to enable them to be handled more easily and efficiently in a factory, store, or retail outlet.

A problem with this known arrangement is that the printing or labelling on the sides of the primary packages is likely to face in different directions, as a result of the random way in which the primary packages are placed in the secondary packages.

The present invention makes it possible for the primary packaging to be oriented in the same direction in the secondary packages.

Referring to Fig. 1, there is shown a carrier 1 in the form of a secondary package having dished portions 2 which depend from the upper portion 3 of the carrier 1. The dished portions 2 are generally cylindrical, but a formation comprising a slightly tapered and stepped portion 4 with a straight riser 5 is formed in a similar position in the side of each of the portions 2 at their bases.

Above the carrier 1, there is shown a container 6 in the form of a slightly tapered but generally cylindrical cup of plastics material. The container constitutes an article which forms a primary package and in its base and at one side there is a formation comprising step 7, which corresponds to the stepped portion 4 of the portions 2 of the carrier 1. A straight riser 8 of the step 7 corresponds to the riser 5 of the stepped portion 4 of the dished portions 2 and it will be understood that the lower part of the container 6 fits into the dished portions 2, as is indicated by the arrow 9.

Containers 6, when placed in the dished portions 2, will be rotated either automatically by vibration during a manufacturing process, or by direct action until they fit snugly into the dished portions 2 and are aligned in the same direction thereby ensuring that any marking or labelling on the containers will face in the same direction provided of course, that the marking or labelling and the steps are correctly oriented with respect to one another.

The steps 7 and stepped portions 4 provide simple location means for the containers 6 to ensure that they fit into the tray in one orientation only.

In the method of forming the base of the primary packages 6 into a non-uniform shape with indentions providing the steps 7 it is necessary to ensure that any printing or marking that may subsequently be applied is correctly positioned with respect to the indentation providing the locator.

In Fig. 2 there is shown a carrier 1 in the form of a tray having dished portions 2 with containers 6 positioned in the dished portions 2 and located by the respective steps 7 and the stepped portions 4 in the container 6 and the carrier 1 in such a way that labels 10 on the containers 6 all face in the same direction.

Of course other forms of location means than the stepped portions 4 and the steps 7 may be employed, and the portions 4 and steps 7 may be formed with shapes other than those shown. The risers 5 and 8 may be curved rather straight, and the "treads" of the steps 7 and of the stepped portions 4 may slope rather than be horizontal, thereby facilitating the rotation of the containers into their required location.

Further the cooperating location means could comprise a vertical or sloping protrusion or protrusions on the side of the container and a corresponding indentation in the side of the dished portions. Although in the case of the containers 6 shown, where the base is required to be substantially flat in order that the containers can stand on their bases, the location means may be male or female cooperating elements which may be either the primary or the secondary packaging article.

Other variations and modifications employing the invention will be readily apparent to those skilled in the art and the invention is not limited to use with either the articles shown or the industry with which the examples are concerned.

For example, although the primary packages shown have their major upper portions of generally regular circular cross-section, they may be of some other, for example, irregular shaped cross-section, with the base of the articles of the same or a different irregular cross-section.

It will also be understood that the primary articles or packages could be pieceparts used in a manufacturing process.

The treads of the stepped portions may slope down to the base of the article instead of being spaced from the base as shown.

CLAIMS

1. Packaging for articles comprising primary packages for holding retail products, and secondary holder means having recesses for holding a plurality of said primary packages, said recesses and primary packages having formations providing for ready placement of the packages in the holder means so that the packages face in a particular orientation.
2. Packaging according to Claim 1, wherein said secondary holder means comprises a tray and said recesses are formed by dished portions in which the primary packages are adapted to stand, with upper portions thereof clear of the tray.
3. Packaging according to Claim 2, wherein the tray is of plastics material.
4. Packaging according to Claim 1, 2 or 3, wherein the primary packages are of similar construction.
5. Packaging according to Claim 4, wherein the primary packages are cups.
6. Packaging according to Claim 5, wherein the cups are of plastics material.
7. Packaging according to any preceding claim, wherein the said formations are such that each primary package is adapted to be placed in a said recess in only one orientation, enabling labels appropriately placed on said primary packages to face in the same direction.
8. Packaging according to any preceding claim, wherein said formations include stepped portions on said primary packages and corresponding shoulders in said recesses.

9. Packaging for articles substantially as hereinbefore described with reference to the accompanying drawings.